

ABSTRACT

A method and apparatus is disclosed for efficiently encoding data representing a video image, thereby reducing the amount of data that must be transferred to a decoder. The method includes transforming data sets utilizing a tensor product wavelet transform which is capable of transmitting remainders from one subband to another. Collections of subbands, in macro-block form, are weighted, detected, and ranked enabling prioritization of the transformed data. A motion compensation technique is performed on the subband data producing motion vectors and prediction errors which are positionally encoded into bit stream packets for transmittal to the decoder. Subband macro-blocks and subband blocks which are equal to zero are identified as such in the bit stream packets to further reduce the amount of data that must be transferred to the decoder.